REMARKS

Claims 2-4, 7-9, 11-13 and 16-20 are pending. By this response 2, 11, 19, and 20 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

Interview Summary

Applicants appreciate the courtesies extended to applicant's representative during the interview conducted on February 9, 2005. During the interview several features of the claims were discussed including the use of VOP's, second memory and controlling the break of a video packet. The Examiner and his supervisor maintain that these limitations, as presently claimed at the time of the interview, are taught by the references. The Examiner and his supervisor stated that clarification of the operation of the coding device of the present invention would be necessary to overcome the cited references. Applicants hereby submit this response based on the discussion during the interview.

Prior Art Rejection

The Office Action rejects claims 2, 11, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over Ando, et al. (US 5,717,641) in view of Chen (US 6,289,129). This rejection is respectfully traversed.

Claims 2, 11, 19 and 20 have been amended to clarify their distinguishing features. Claim 2 now recites, *inter alia*, a coding device comprising: a coder, a first storing unit, a second storing unit a code volume controller for controlling the transfer amount of said codes stored in said first storing unit to said second storing unit based on a code volume of said code, wherein the code volume controller calculates a present code volume (Sc) for each video object (VOP) and decides whether a stuffing is to be inserted into said video packet or a new video packet constituted, based on a relationship between the present code volume (Sc) and a minimum code volume (Tmin), wherein, if desired, said code volume control a storage of a stuffing of a video packet in said second storing unit based on said minimum code volume obtained for each VOP unit image.

Claim 11 recites, *inter alia*, a coding method comprising the steps of: coding an external input signal in a macroblock unit, storing a code, controlling an output of said code based on a code volume of said code, wherein a present code volume (Sc) is calculated for each video object plane (VOP); and a decision is made as to whether a stuffing is to be inserted into said video packet or a new video packet constituted, based on a relationship between the present code volume (Sc) and a minimum code volume (Tmin) and storing said output.

Claim 19 recites, *inter alia*, a video signal coding apparatus, comprising: a video coder, a first storage unit, a second storage unit and a control volume

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controller, operatively connected to said video coder, first storage unit and said second storage unit, said control volume controller determining a minimum code volume (Tmin) and a present code volume (Sc) for each video object plane (VOP) unit image of said video packet, the control volume controller determining whether a stuffing is to be inserted into said video packet or a new video packet constituted, based on a relationship between said present code volume (Sc) and said minimum code volume (Tmin) and controlling a break of the video packet and the insertion of a stuffing such that said present code volume (Sc) of the VOP is not smaller than said minimum code volume (Tmin).

Claim 20 recites, *inter alia*, a method for coding a video signal, comprising: coding said video signal as a video packet, storing said encoded video signal in a first storage unit, storing an output of said first storage unit in a second storage unit, and determining, by a control volume controller operatively connected to said video coder, first storage unit and said second storage unit, a minimum code volume (Tmin) and a present code volume (Sc) for each video object plane (VOP) unit image of said video packet, the control volume controller determining whether a stuffing is to be inserted into said video packet or a new video packet constituted, based on a relationship between said present code volume (Sc) and said minimum code volume (Tmin) and controlling a break of the video packet and the insertion of a stuffing such that said present code volume Sc of the VOP is not smaller than said minimum code volume (Tmin).

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As recited in the independent claims, for each VOP a present code volume is calculated. A decision is made whether to insert a stuffing in the video packet or to create a new video packet based on a relationship between the present code volume and the minimum code volume (Tmin).

In contrast, Ando teaches a data storing method in which data is coded at a determined data rate. The coded data is sectioned in the packet and supplied to a memory. The coder also detects the maximum amount of coded data in each packet and provides this to a control data memory 4. The amount of data of each packet is supplied to the control circuit 3 via the control data memory. The reading control circuit reads the maximum data rates of the packets. The reading control circuit then determines whether there is a desired output data rate. If there is a desired output data rate the reading control circuit compares the maximum date of the packet with the desired output data rate. Transmission of data is based upon the dates rates of the packets. See column 4, lines 23-40. Prior to transmission dummy data can be added to the coding data by the dummy data adding circuit 6. Dummy data is only added if the output data rate is equal to or greater than the maximum data rate.

Dummy data is added based on the amount of data in each packet from the maximum data rate and the output data rate. See column 2, lines 50-67 to column 3, lines 1-40 and column 4, lines 47-58.

The Office Action alleges that the code volume controller is taught by the dummy data adding circuit 6, as described on column 2, lines 15-20 and

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column 3, lines 5-19 and lines 42-60. Applicants note that dummy data adding circuit controls the amount of dummy data added to a packet based on the maximum data rate. However, the dummy data adding circuit does not make a determination of whether to insert a stuffing or create (constitute) a new video packet based on a relationship between a present code volume (Sc) and a minimum code volume (Tmin). In fact, in the teachings of Ando, there is no suggestion of creating a new video packet. Dummy data is either added or it isn't, in Ando's system.

Further, Ando fails to teach the use of two separate code volumes, i.e., a present code volume (Sc) and minimum code volume (Tmin). Ando merely teaches the use of a maximum data rate in determining the addition of dummy data.

Further, Chen fails to make up for Ando's deficiencies. Chen teaches a system that uses VOP's. The Office action has relied upon Chen merely to teach the use of a VOP not for the direct teachings of its system elements. In any event, Chen does not teach a system that determines a minimum code volume and a present code volume for each video object plane unit image of said video packet and determining whether a stuffing is to be inserted into said video packet or a new video packet constituted, based on a relationship between the present code volume and the minimum code volume, as recited in the present claims.

Therefore, in view of the above, the combination of Ando and Chen fail to teach each and every feature of the claims as required.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 2, 11, 19 and 20 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.
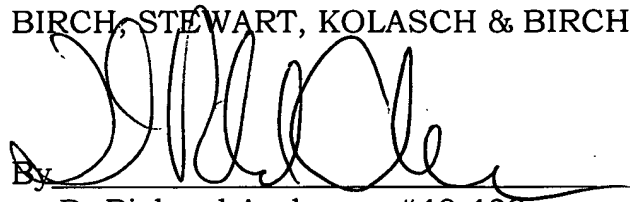
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No.

02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Attachment(s)